

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 1

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Item Name: Crosstube Aft

Stop



Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: *RD MK*

Date: *09-9-15*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D206-667-241

Rev C

DSI 9471

Rev A

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

✓ Photocopy bluefile and create labels as per PPP D206-667-201 CHG003

5 09/10/21

HJ for BG 09/10/20

110

0.00



Packaging

Packaging

Memo

0.00

Packaging

9/10/21 54

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 2

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120



CNC Bend 2

BENDING MACHINE - CROSSTUBES

0.00

CNC Alpha 160 Bender

Memo

0.00

Bend tube as per Dwg D206-667-241 using CNC bender program 206B-AF and
Folio FT _____

d

MB 09-09-20

130



QC

QC15- Crosstube Dimensional Check

0.00

Quality Control

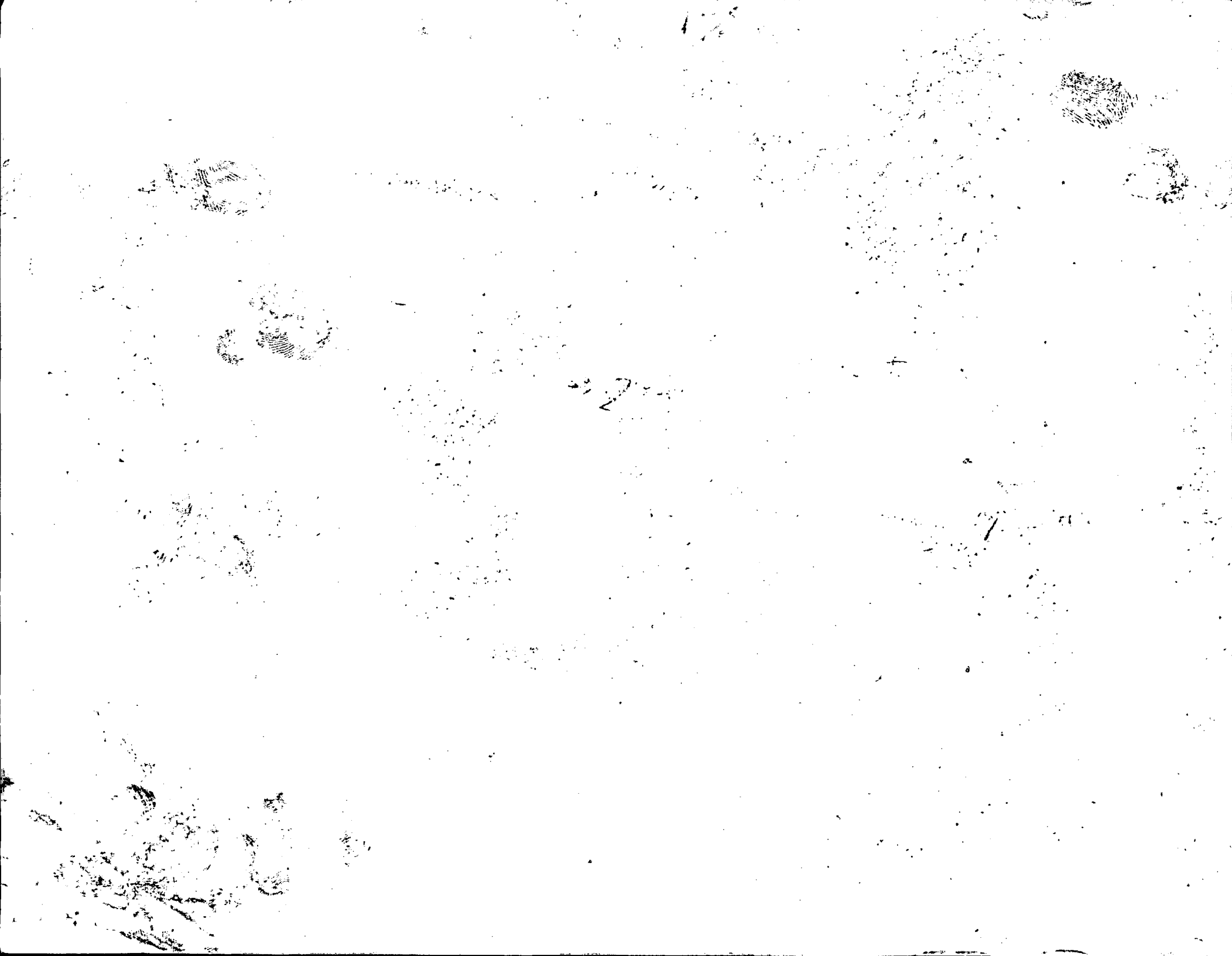
Memo

0.00

⇒ 502/01/30



d



Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 3

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140



Crosstubes

Crosstubes

0.00

0.00

Memo

1-Drill pilot holes (3/16") as per Dwg D206-667-241 using drill Jig DT8575 & DT8576

2-Drill & ream holes as per Dwg D206-667-241 using drill Jig DT8575 & DT8576.

(DRILL 3 HOLES ON BOTH SIDES)

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate tube using "T" pins off holes drilled in previous step.

4-Drill pilot holes (3/16") as per Dwg D206-667-241 using drill Jig DT8575 & DT8576

5-Drill & ream holes as per Dwg D206-667-241 using drill Jig DT8575 & DT8576. Check dimensions between holes on all four sides to ensure proper alignment. Use DT8583 & 8584 SUPPORT Jigs.
(DRILL 3 HOLES ON BOTH SIDES)

6-Drill rivet holes as per Dwg D206-667-241 using drill Jig DT8788

7-C'sink holes as per Dwg D206-667-241

8-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-241

9-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-241
Inside of Cuff (Do not engrave on outside of tube)MB
09-10-01

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 4

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

150

Crosstubes Chemical Conversion

0.00



HandFXtube

Memo

0.00

Hand Finishing Crosstubes

(IX)

Q

MB 09-10-01

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

⇒ S or L 10/01

(X)

d

170

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

⇒ S or L 10/01

(X)

p

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 5

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 	Outsource process - NDT per QSI038 4.1	0.00							
Outsource2	Memo	0.00							
Outsource process - NDT	CROSSTUBES								
190 	Packaging	0.00							
Packaging	Memo	0.00							
Packaging	Ensure copy of NDT results attached to work order.								
200 	Inspect dimensions to drawing	0.00							
QC	Memo	0.00							
Quality Control	Inspect for damage & ensure results are as per Dwg D206-667-201								

210: 10557

12 09/10/09 ①

09/10/09 ①

MA 09 10 13 ②

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 6

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210



SprayPaint

SprayPaint

0.00

Spray Painting

Memo

0.00

1-Mask Threaded holes

2-Prime inside and outside crosstube as per QSI 005 4.2

3-Paint outside crosstube with White Imron as per QSI 005 4.2

PRIME:

Start Time: 7:30

Finish Time: 8:00

PAINT:

Start Time: 2:30

Finish Time: 3:30

m

09

10

14 (1)

220



QC

Quality Control

QC14- Inspect Spray Paint

0.00

Memo

0.00

Wrap in plastic bag to protect from scratches

ET 09-10-19

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 7

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

230



Crosstubes

Crosstubes

0.00

Crosstubes

Memo

0.00

1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI 015. Let cure for 12h after installation and prior to packaging. Note: (3) top holes should be facing up.
A/R Magnobond 6398 : 112417 exp: 07/2010

1-Torque clamps to 80-100 in lb

→ m/09 10 20 ①

m/ 09 10 15 ①

240



QC

QC5- Inspect part completeness to step on W/O

0.00

Quality Control

Memo

0.00

27 802/01/20

② 0

250



Packaging

Pick Kit

0.00

Packaging

Memo

0.00

9/10/21 SP

Work Order ID 52052

September 15, 2009 11:18:36 AM



Page 8

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

⇒ 8/10/21



/

270

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD206-667-201

Location: _____
PPP Rev: _____

9/10/21 DSP

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/10/22 HJ

CMF 09-10-21

Picklist Print

September 15, 2009 11:18:36 AM

Page 1

Work Order ID: 52052

Parent Item: D206-667-201RevC

Parent Item Name: Crosstube Aft

Comments:

Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D206-667- 201TRNRevC		Manufactured	No			110	Each	2.0000	1.0000			



Crosstube Turning Detail



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FG	2	
44270	1	
44271	1	

D2891-1RevA1 Manufactured No



2.25 Support

230 Each 81.0000 2.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	81	
40336	1	
41198	16	
43880	20	
45935	4	
46159	20	
50952	20	

(14) MB 09-09-30 ✓

ml 09 10 15

Picklist Print

Page 2

September 15, 2009 11:18:36 AM

Work Order ID: 52052



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3595-063-395		Manufactured	No			230	Each	44.0000	4.0000			
RUBBER CUSHION												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

44

44667

44

ml 09 10 15

MS21920-20

Purchased

No

230

Each

156.3000

4.0000



Clamp (per MIL-DTL-8783C)

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

156.3

103478

2

106484

12

109269

9.3

110536

10

111281

34

112307

50

112624

39

ml 09 10 15

September 15, 2009 11:18:36 AM

Shop Packet Print

Page 2

Picklist Print

Page 3

September 15, 2009 11:18:36 AM

Work Order ID: 52052



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
S AN5-10A Bolt		Purchased	No			250	Each	150.0000	10.0000 			

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	150	
107013	8	
110363	2	
111425	2	
111819	38	
112314	50	
112385	50	

111819 SP

S AN5-30A

BOLT

Purchased No

250 Each

85.0000

10.0000

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	85	
110467	85	

110467 911061 SP

September 15, 2009 11:18:36 AM

Shop Packet Print

Page 3

Picklist Print

Page 4

September 15, 2009 11:18:36 AM

Work Order ID: 52052



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
S AN5-32A7 		Purchased	No			250	Each	79.0000	4.0000			
Bolt												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	79	
106242	3	
106519	4	
110363	17	
111916	5	
112082	50	

2009 9/10/21 SD

Picklist Print

September 15, 2009 11:18:36 AM

Work Order ID: 52052



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD516 Washer		Purchased	No			250	Each	1,153.000	20.0000			



M112794 SQ

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	1153	
100564	2	
106167	6	
107534	34	
107959	43	
108246	46	
108672	2	
109059	49	
109752	22	
110363	46	
110523	57	
111279	43	
112082	303	
112314	500	

D2872-043RevA

Manufactured No

250

Each

11.0000

2.0000



Nut Plate Assembly

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	11	
28918	11	

28918 9/15/09 SQ

Picklist Print

Page 6

September 15, 2009 11:18:36 AM

Work Order ID: 52052

Parent Item: D206-667-201RevC

Parent Item Name: Crosstube Aft



Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:



Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
S D2872-045RevA  Nut Plate Assembly		Manufactured	No			250	Each	11.0000	2.0000 			



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	11	
28919	11	

2891954

S D3039-3RevA  Centre Drill		Manufactured	No			250	Each	20.0000	1.0000 			
-------------------------------------------------------------------------------------------------------------------	--	--------------	----	--	--	-----	------	---------	-----------------------------------------------------------------------------------------------	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	20	
14761	20	

14761 54

S MS21042L5  Nut		Purchased	No			250	Each	1,307.000	10.0000 			
----------------------------------------------------------------------------------------------------------	--	-----------	----	--	--	-----	------	-----------	--------------------------------------------------------------------------------------------------	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1307	
110382	10	
111636	297	
112314	1000	

111636 54 9/16/2009

September 15, 2009 11:18:36 AM

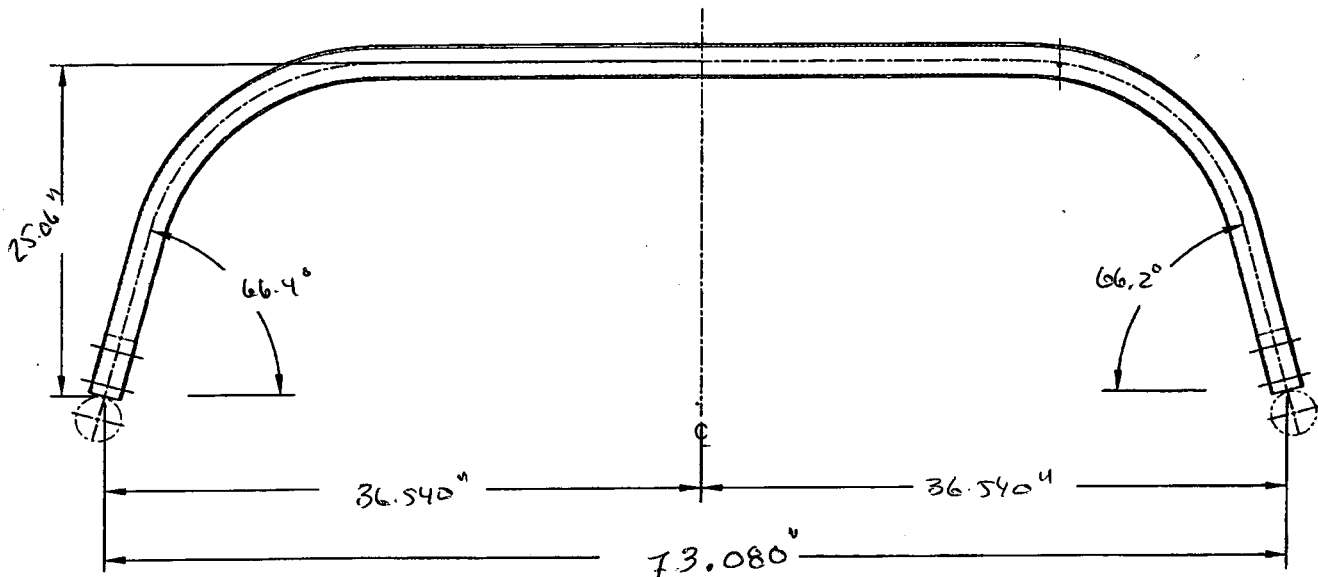
Shop Packet Print

Page 6

DART AEROSPACE LTD		Work Order:	52052
Description: Crosstube High Aft (206B)		Part Number:	D206-667-201
Inspection Dwg: D206-667-241 Rev: B C		Page 1 of 1	

09.09.21

Required Dimension	Min	Max
Height	24.98	25.10
1/2 Span	36.54	36.66
Angle	65	67
Total Span	73.08	73.32



Comments
* tube is narrow but just within tol.

QC15 Inspection	S
Date	07/01/30

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	07.12.04	24-98 was 24.48	KJ/JM	

Item	Qty -241	Part Number	Description
1	X	D206-667-241	CROSSTUBE ASSEMBLY (206B HIGH AFT)
2	1	D6003-102	CROSSTUBE
3	2	D2891-1	SUPPORT
4	4	D3595-063-395	RUBBER CUSHION
5	4	MS21920-20	CLAMP (OR MS21920-21)
6	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

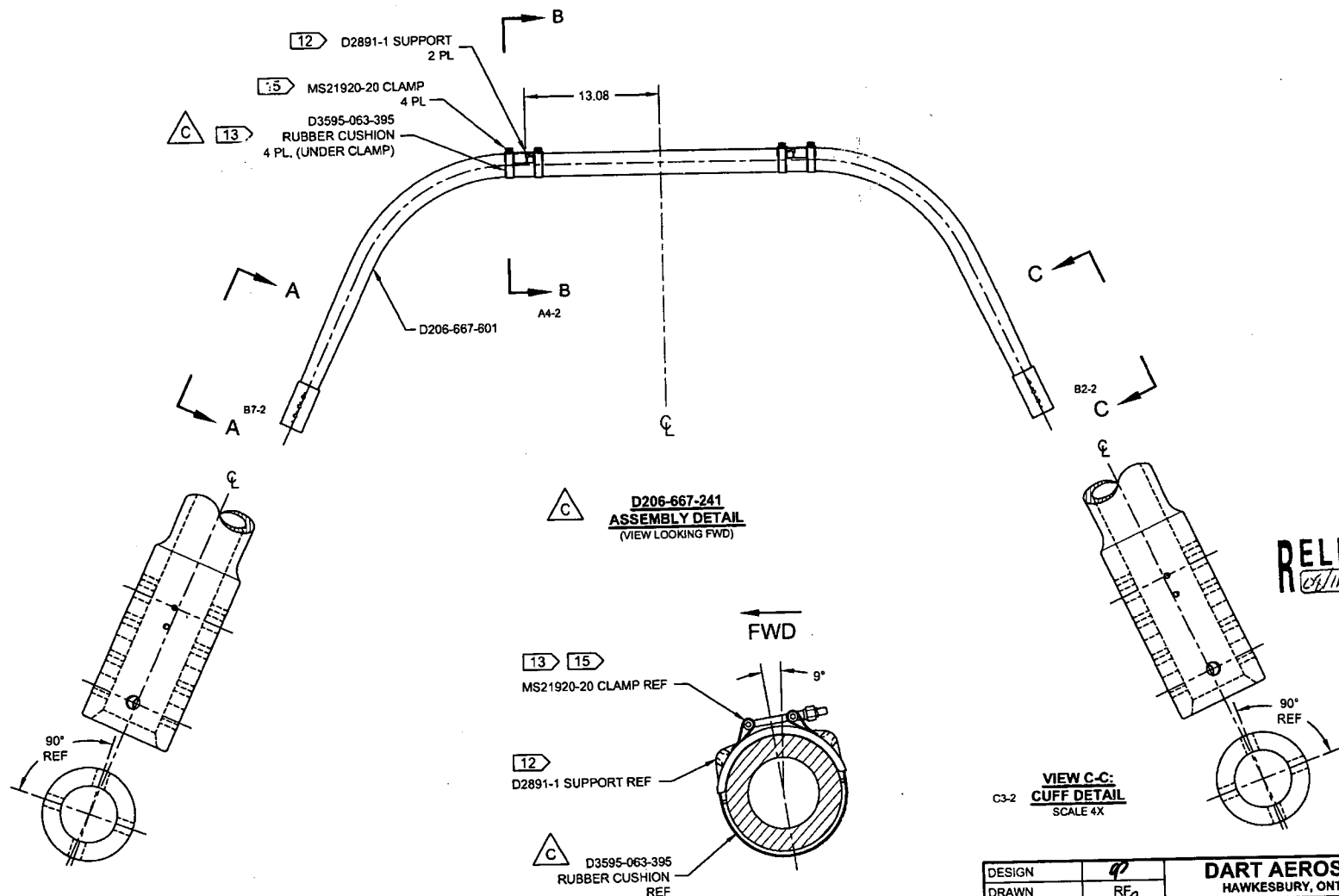
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 52058

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6003-102
FINISHED LENGTH = 100.60±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-241" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 22.5 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 12 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS MECHANISMS ARE LOCATED ON CROSSTUBE CLAMPS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
08/11/2006

C	REFORMAT/REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN C5-3, C4-3, D3-3); RELOCATED FLAG #6 (ZN A7-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	9P	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. REV. C D206-667-241 SHEET 1 OF 4 TITLE SCALE CROSSTUBE ASS'Y (206B HIGH AFT) NTS <small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DRAWN	RF		
CHECKED	9P		
MFG. APPR.	9P		
APPROVED	9P		
DE APPR.	9P		
DATE	08.11.06		



D206-667-241
ASSEMBLY DETAIL
 (VIEW LOOKING FWD)

VIEW A-A:
CUFF DETAIL
 SCALE 4X

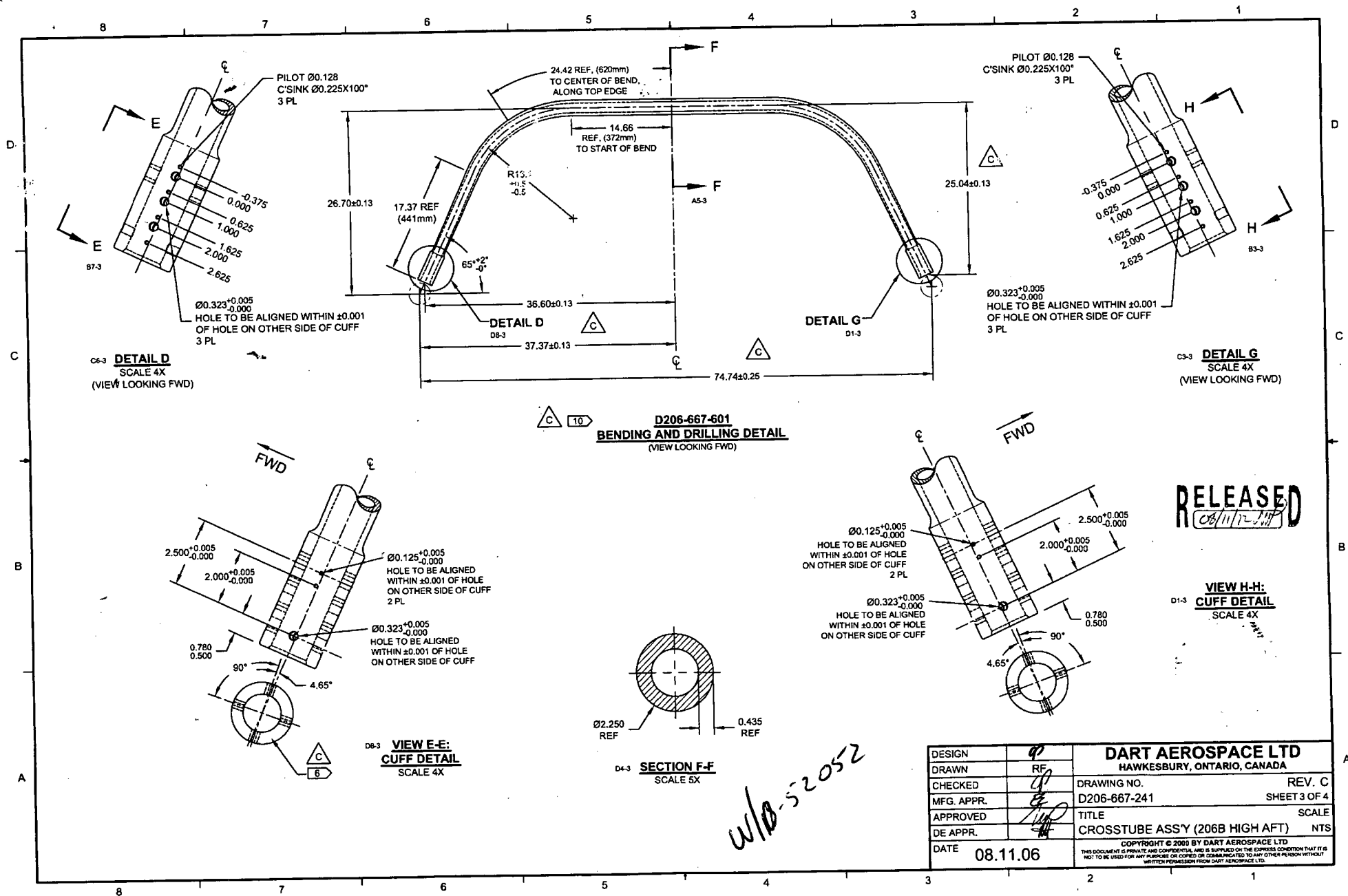
SECTION B-B
 SCALE 5X

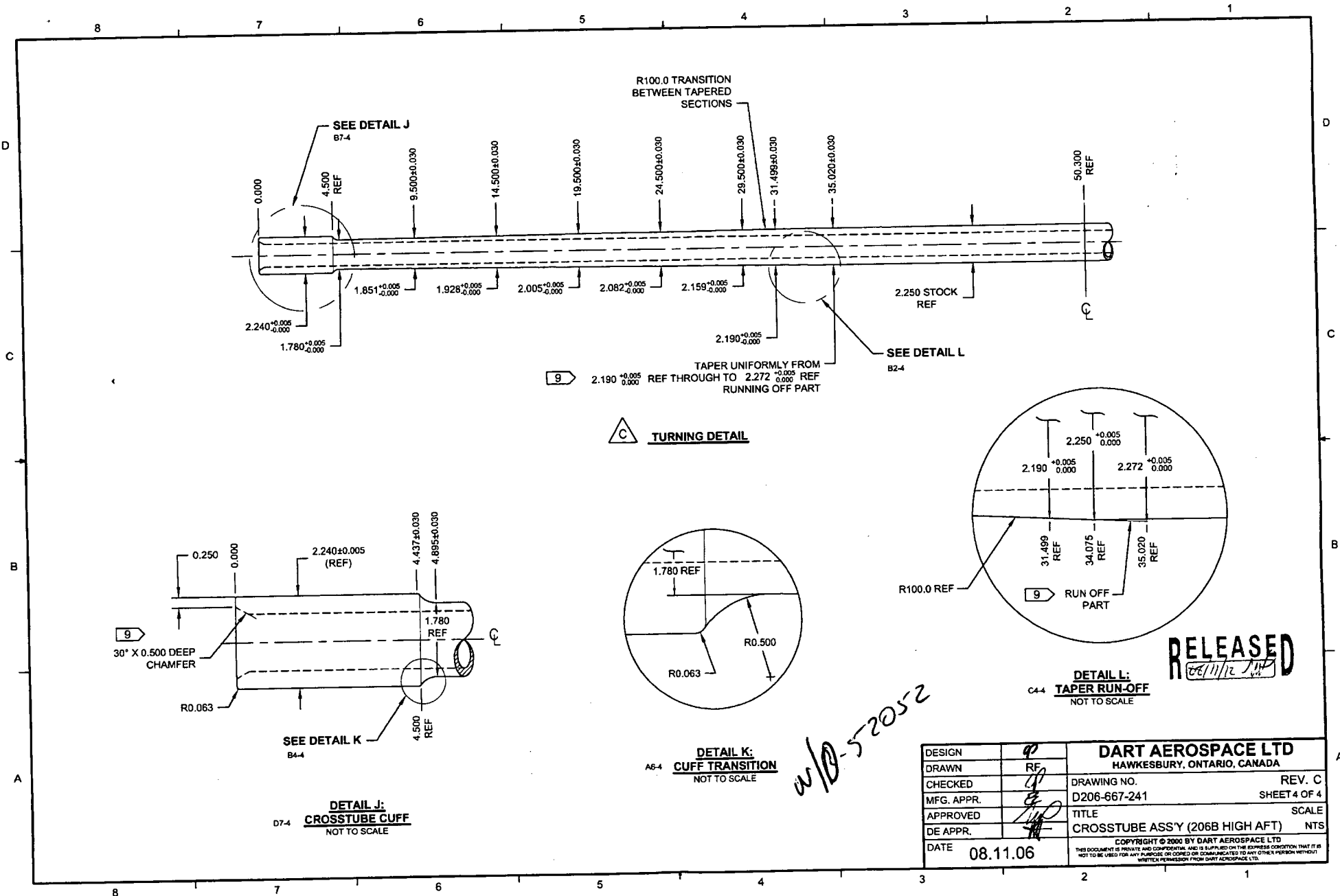
VIEW C-C:
CUFF DETAIL
 SCALE 4X

RELEASED
 06/11/12

W/O-52052

DESIGN	40	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	CP	DRAWING NO.	REV. C
MFG. APPR.	CP	D206-667-241	SHEET 2 OF 4
APPROVED	CP	TITLE	SCALE
DE APPR.	CP	CROSSTUBE ASS'Y (206B HIGH AFT)	NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	





S

5.0 PARTS LIST

Item	Qty -011	Qty -013	Qty -015	Qty -101	Qty -201	Qty -103	Qty -203	Qty -105	Qty -205	Part Number	Description
	X									D206-667-011	SPACER BLOCK KIT
		X								D206-667-013	NUT PLATE KIT (-101/-103/-105/-203/-205)
			X							D206-667-015	NUT PLATE KIT (-201)
				X						D206-667-101	CROSSTUBE INSTALLATION, 206A/B HIGH FWD
					X					D206-667-201	CROSSTUBE INSTALLATION, 206A/B HIGH AFT
						X				D206-667-103	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH FWD
							X			D206-667-203	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH AFT
								X		D407-667-105	CROSSTUBE INSTALLATION, 407 HIGH FWD
									X	D407-667-205	CROSSTUBE INSTALLATION, 407 HIGH AFT
1				1						D206-667-141	CROSSTUBE ASSEMBLY, 206A/B HIGH FWD
2					1					D206-667-241	CROSSTUBE ASSEMBLY, 206A/B HIGH AFT
3						1				D206-667-143	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH FWD
4							1			D206-667-243	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH AFT
5								1		D407-667-145	CROSSTUBE ASSEMBLY, 407 HIGH FWD
6									1	D407-667-245	CROSSTUBE ASSEMBLY, 407 HIGH AFT
10				*2	*2	*2		*2		D2891-1	SUPPORT
11							*2			D2892-1	SUPPORT
12									*1	D2894-1	SUPPORT
13				*2	*2	*2		*2		D2856-400-694	ABRASION STRIP
14							*2		*2	D2856-400-773	ABRASION STRIP
15									*1	D2856-600-851	ABRASION STRIP
16				*4	*4	*4		*4		MS21920-20	CLAMP
17							*4		*4	MS21920-22	CLAMP
18									*2	MS21920-24	CLAMP
19				4	4	4		4		AN5-32A	BOLT
20							4		4	AN5-34A	BOLT
21				4	4	4	4	4	4	MS21042L5	NUT (OR MS21042-5)
22				8	8	8	8	8	8	AN960JD516	WASHER
23									*2	D3190-1	CHAFING SHIELD
30	8									AN4-6A	BOLT
31	8									AN4-7A	BOLT
32	16									AN960JD416	WASHER
33	2									D3193-041	SPACER BLOCK ASSEMBLY
40		2		*2		*2	*2	*2	*2	D2873-043	NUT PLATE
41		2		*2		*2	*2	*2	*2	D2873-045	NUT PLATE
42			2		2					D2872-043	NUT PLATE
43			2		2					D2872-045	NUT PLATE
44		10		10		10				AN5-7A	BOLT
45		10	10		10		10	10	10	AN5-10A	BOLT
46		4	4	4	4		4		4	AN5-30A	BOLT
47		4					4		4	AN5-32A	BOLT
48		18	18	10	10	10	10	10	10	AN960JD516	WASHER
49		4	4		6					MS21042L5	NUT (OR MS21042-5)

*REFERENCE ONLY. PARTS ARE INCLUDED IN D206-667-141/241/143/243, & D407-667-145/245 ASSEMBLIES ABOVE

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C

Date: 05.07.26

52052

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D206-667 REV. C OR EARLIER REVISION
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D206-667 REV. 2 OR EARLIER REVISION

REF TCCA STC: SH01-5
REF FAA STC: SR01304NY
REF EASA STC EASA.IM.R.S.01179

REFERENCE ONLY

5

PURPOSE:

For the D206-667-201 Crosstube Installation, the parts list was missing the required drill bit specified in Figure 5 of IIN-D206-667 and Figure 32-5 of ICA-D206-667.

CHANGE:

For the D206-667-201 Crosstube Installation, the included D3039-3 Center Drill is used to open the specified holes to Ø0.313". The hole must then be opened to Ø0.323"+0.005/-0.000. The parts list of IIN-D206-667 and ICA-D206-667 is amended as follows:

5.0 PARTS LIST (IIN-D206-667 REV. C OR EARLIER REVISION)

32.8 PARTS LIST (ICA-D206-667 REV. 2 OR EARLIER REVISION)

QTY	PART NUMBER	DESCRIPTION
-201		
X	D206-667-201	CROSSTUBE INSTALLATION, 206A/B HIGH AFT
1	D3039-3	CENTER DRILL (ADD)

52052

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: [Signature]
D. SHEPHERD (DE # 02)

DATE: 09.07.06
CERT. NO.: SH01-5
ISSUE NO.: 3

A	NEW ISSUE, NCR 09-005	CP	09.07.06
REV.	DESCRIPTION	BY	DATE
DESIGN	<u>92</u>	DART AEROSPACE LTD	
DRAWN	<u>92</u>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<u>[Signature]</u>	DRAWING NO.	REV. A
MFG. APPR.	<u>N/A</u>	DSI 9471	SHEET 1 OF 1
APPROVED	<u>[Signature]</u>	TITLE	SCALE
DE APPR.	<u>[Signature]</u>	CENTER DRILL ADDITION	NTS
DATE	09.07.06	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



LIQUID PENETRANT TEST REPORT

P- 1530

PAGE 1 OF 1

CLIENT

DART AEROSPACE

DATE

OCT-9-2009

TIME AM ☒ P

ATTENTION

LINDA/CHAUTEL

ACUREN JOB NO.

188-08-001567

ADDRESS

1270 48th DEEP ST, HAWKESBURY
ON. K6H 1K7

PO/NO No.

- 10557

WORK LOCATION

SAME

ACCEPTANCE STD.

ASTM 1417

REV./DATE

200

PROJECT

F.P.I. on CROSS TUBES AND MACHINED PARTS

ITEM(S) EXAMINED

10 CROSS TUBES

13 MACHINED PARTS

JOB DESCRIPTION

PROCEDURE No. LT-

REV./DATE

TECHNIQUE No. LT-

REV./DATE

PART No.

STAINLESS STEEL

MATERIAL ALUMINUM

THICKNESS

N/A

SCOPE

WET FLUORESCENT LIQUID PENETRANT INSPECTION
CARRIED OUT 100% EXTERNAL

TEST DETAILS

METHOD	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> WATER WASH	<input type="checkbox"/> SOLVENT REMOVABLE	<input type="checkbox"/> POST EMUL
FAMILY BRAND	HUSNA FLUX		BLACK LIGHT S/N	16459	<input type="checkbox"/> OUTPUT > 1000 μ W/cm ²
PENETRANT	2L-67	MINIMUM DWELL TIME	45	MIN.	<input type="checkbox"/> FLASHLIGHT <input type="checkbox"/> TROUBLELIGHT <input type="checkbox"/> OUTPUT > 100 fc @ 5
PENETRANT REMOVER	H 20	MINIMUM DRY TIME	>10	MIN.	OTHER LABING
DEVELOPER	SKD 52	MINIMUM DWELL TIME	10	MIN.	LIGHT METER S/N
DEVELOPER TYPE	<input checked="" type="checkbox"/> NON AQUEOUS	<input type="checkbox"/> AQUEOUS	<input type="checkbox"/> DRY	CAL DUE DATE	

TEST SURFACE

SURFACE CONDITION	<input type="checkbox"/> AS GROUND	<input type="checkbox"/> AS WELDED	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> SHOT BLASTED	<input type="checkbox"/> CLEAN BARE ME
SURFACE TEMPERATURE	<input type="checkbox"/> < -4°C/ 20°F	<input type="checkbox"/> -4°C/ 20°F TO 10°C/50°F	<input checked="" type="checkbox"/> 10°C/50°F TO 52°C/125°F	<input type="checkbox"/> > 52°C/125°F	

RESULTS-

☒ METRIC ☐ IMPERIAL

1 - W.O. 51939 - CROSS TUBE ✓
1 - W.O. 51940 - CROSS TUBE ✓
1 - W.O. 52054 - CROSS TUBE ✓
1 - W.O. 52055 - CROSS TUBE ✓
~~1 - W.O. 51297 - CROSS TUBE ✓~~
1 - W.O. 51937 - CROSS TUBE ✓
1 - W.O. 51938 - CROSS TUBE ✓
~~1 - W.O. 52052 - CROSS TUBE ✓~~
1 - W.O. 52053 - CROSS TUBE ✓
1 - W.O. 50982 - CROSS TUBE ✓
1 - W.O. 50983 - CROSS TUBE ✓
13 - W.O. 51297 - STUDS ✓

ALL PARTS EXAMINED. HAVE
BEEN FOUND ACCEPTABLE
TO STANDARD.

mm 09 10 13

Scope of Services

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as to data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, express or implied, is made or intended by Acuren Group Inc.

SIGNATURES

CLIENT REPRESENTATIVE	MATTHEW MURDOCH	SIGNATURE	DTR #	E-27843
TECHNICIAN (SIGNATURE):	Mike Johnston	1 ST TECHNICIAN	REPORT REVIEWED BY:	
NAME (PRINT):	Mike Johnston	2 ND TECHNICIAN	NAME	INIT
CGSB LEVEL	2	SNT LEVEL	2	
CGSB REG. No	6060	CGSB LEVEL		
		CGSB REG. No		

WHITE - CLIENT COPY

CANARY - OFFICE COPY

PINK - TECHNICIAN COPY

GOLD - OFFICE COPY

PT 5